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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/857,884	09/18/2001	Michael Benz	112740-224	2823
29177	7590	09/23/2005	EXAMINER	
BELL, BOYD & LLOYD, LLC P. O. BOX 1135 CHICAGO, IL 60690-1135			SCHEIBEL, ROBERT C	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 09/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/857,884

Applicant(s)

BENZ ET AL.

Examiner

Robert C. Scheibel

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

- Applicant's Amendment filed 7/13/2005 is acknowledged.
- Claim 11 has been amended.
- New claim 21 has been added.
- Claims 11-21 are pending.

Response to Arguments

1. Applicant's arguments, see pages 6-8, filed 7/13/2005, with respect to the rejection of claims 11, 13-18, and 20 under 35 U.S.C. 102(e) have been fully considered but they are not persuasive.

Applicant argues that the Tiedemann reference (U.S. Patent 5,859,840) does not disclose the limitation "signaling in-band a subsequently valid allocation of the at least one common channel for one of the plurality of connections in at least one of the channels of the data transmission in accordance with a data rate allocated to the connection". Applicant accurately describes an embodiment of Tiedemann as a system of assigning "additional channels" in the fourth paragraph of page 6. In the next paragraph, applicant cites the abstract and lines 40-45 of column 2 and argues that in Tiedemann, each channel is associated with each respective assignment message to notify the receiving mobile station which additional channels are to be used. Examiner agrees generally with these characterizations with the following caveat: applicant has failed to acknowledge the other embodiment used in the rejection provided in previous office actions which identifies a "set" of channels rather than individual channels.

Applicant then argues in paragraph 6 of page 6 that Tiedemann does not disclose agreeing on a relationship between data rates and common channels in a separate channel. Examiner disagrees with this assertion as stated in the previous office action. The Tiedemann reference does in fact disclose this limitation. The passage from lines 25-27 of column 5 indicates that the pre-defined sets used in an embodiment can consist of a different number of channels. As argued in the previous office action, the number of channels is proportional to the data rate of the set; thus these different pre-defined sets have an associated data rate defined at set-up. As further evidence, consider lines 66-67 of column 4 which indicates that each additional channel has a fixed rate associated with it. As even further evidence, consider the passage in lines 40-45 of column 2 which clearly indicates that the additional channels are only assigned if a sufficient number (to satisfy the additional capacity needed above and beyond the primary channel) are available. This clearly indicates that the assignment is made in accordance with a data rate required by the user. The present claim language is somewhat broad and fails to distinguish the present invention from Tiedemann.

Applicant then recites a passage from Tiedemann (lines 12-30 of column 5) on page 7. In the following paragraph, applicant asserts that this passage indicates that the controller indicates which additional channels from the set are to be used are identified in further channel assignment messaging. While this may be true in one embodiment, applicant has failed to acknowledge the subset of this passage used in the rejection (lines 22-27 of column 5) and the embodiment described therein which teaches that a pre-defined set (as opposed to individual channels) is all that need be identified. See lines 24-25 of column 5 which clearly indicates that the "channel assignment messages simply identify one of the predefined sets". Depending on the set

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identified (and the number of channels in that set), the data rate is thus signaled in-band through the channel assignment message, thus disclosing the claim limitation in question.

As indicated above, the present claims contain relatively broad language. Applicant is urged to more specifically define the invention in the claims to distinguish the present invention from the prior art of record.

2. Applicant's arguments, see pages 6-8, filed 7/13/2005, with respect to the rejection of claims 12 and 19 under 35 U.S.C. 103(a) have been fully considered but they are not persuasive.

Applicant argues that these claims are allowable in view of applicant's argument that parent claim 11 is allowable. As stated above, examiner disagrees with this assertion and believes the rejection of claim 11 to be proper. As such, the previous rejection of claims 12 and 19 is maintained herein.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 11, 13-18, 20, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,859,840 to Tiedemann, et al.

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Regarding claims **11, 20 and 21**, Tiedemann discloses the step of distinguishing channels using individual spread codes in lines 28-32 of column 2. The similar limitation of claim 21 of identifying individual spread codes in a plurality of channels on a broadband frequency band is disclosed in lines 28-32 of column 2 as well as lines 58-62 of column 4. The further limitation of this step that at least one common channel allocated to a plurality of connections is present is disclosed by Tiedemann in the pool of common channels of lines 34-39 of column 2. The step of signaling in-band a subsequently valid allocation of the common channel(s) (claims 11 and 21) and the signaling device for performing this step (claim 20) is disclosed in lines 44-46 of column 5 of Tiedemann. The further limitation that this be done in accordance with a data rate allocated to the connection is disclosed in lines 40-45 of column 2, lines 22-27 of column 5, and lines 10-17 of column 6. The first passage describes how the additional channels are assigned in response to a specific request for additional transmission capacity (data rate). The additional channels are assigned only if this additional capacity (a sufficient number of channels) is available, thus indicating that the allocation is made in accordance with a data rate required by the connection. The second and third passages describe how the additional channels are signaled in the channel assignment message by using only a few bits to identify which group of channels (described as a predefined set) from the set of possible channels has been assigned. Lines 25-27 of column 5 indicate that in a particular embodiment, the pre-defined sets of additional channels consist of a different number of channels. Thus, the set identified in the channel assignment message (see lines 24-25 of column 5) indicate the data rate in a very similar manner to the method described in the present specification for this limitation. The cell controller is the signaling device. The limitation of agreeing upon a relationship between the allocated data rate and the at least on

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common channel to be used in a separate signaling channel (claims 11 and 21) and the signaling device for performing this step (claim 20) is disclosed in lines 22-27 of column 5 and lines 10-17 of column 6. The predefined sets of lines 22-25 of column 5 are allocated during call setup as indicated in the passage from column 6. The separate signaling channel is that used during call set-up. Tiedemann discloses the step of transmitting the data based on the allocation (claims 11 and 21) and the transmitter for performing this step (claim 20) in lines 25-32 of column 6. The transmitter is element 34 of figure 2.

Regarding claim 13, Tiedemann discloses the limitation that the transmission of data occurs in the downlink direction in lines 55-59 of column 3.

Regarding claim 14, Tiedemann discloses the limitation that at least one channel per connection is allocated exclusively in lines 34-35 of column 2. Lines 36-39 of column 2 imply that the pool of common channels contains the remaining channels not used as dedicated channels to each user.

Regarding claim 15, the limitation that the common channels are allocated for connections having a high maximum data rate is disclosed throughout Tiedemann. It is clear that the use of the common channels is for high data rate channels as indicated, for example, in the abstract and in lines 40-45 of column 2.

Regarding claim 16, the limitation that the common channels are allocated for connections having high data rate dynamics is disclosed in Tiedemann in the variable rate data transmission discussed in lines 38-50 of column 8.

Regarding claim 17, Tiedemann discloses the limitation that the in-band signaling can be used to select from a plurality of combinations for a subset of the data rates in lines 22-27 of

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column 5. These sets can clearly be comprised of combinations which result in the same data rate. Specifically, the statement that in an improved embodiment, the pre-defined sets consist of different numbers of additional channels implies that the previous embodiment consisted of a plurality of combinations (sets) with the same number of channels and therefore the same data rate.

Regarding claim 18, Tiedemann discloses the limitation that the relationship between allocated the data rate and the common channels is agreed upon at connection setup in lines 10-12 of column 6.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

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5. Claims **12 and 19** are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,859,840 to Tiedemann, et al in view of Applicant's admitted prior art.

Regarding claims **12 and 19**, Tiedemann discloses all the limitations of the parent claim 11 as described in the rejection above.

Tiedemann does not disclose expressly the limitations of claim 12 of a combination of data for a plurality of services being transmitted within at least one channel and the data rate and the allocation of the common channels being signaled using TFCI values. Tiedemann also does not disclose expressly the limitation of claim 19 of a partial information item being used to signal in-band the data rates.

Regarding claim 12, applicant's admitted prior art discloses the limitation of a plurality of services being transmitted within at least one channel in lines 15-16 of page 2 of the present application. It is well known to transmit data from multiple services in parallel in the UMTS mobile radio system. Applicant's prior art also discloses the limitation of sending the data rate using the TFCI parameter. The teaching of Tiedemann as described above, correlates the value of the in-band parameter (in this case the TFCI parameter) with the specific channel set or combination.

Regarding claim 19, the TFCI is a partial information item in that it does not directly indicate the specific channel assignments, but only indicates an index value which corresponds to a set of channels according to the mapping information exchanged at call setup.

Tiedemann and Applicant's prior art are analogous art because they are from the same field of endeavor of efficiently sending high rate data over wireless systems.

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At the time of the invention it would have been obvious to a person of ordinary skill in the art to modify Tiedemann to send the data from multiple services using the allocated channel. It would also have been obvious to a person of ordinary skill in the art to modify Tiedemann to implement the channel assignment message using the TFCI parameter as taught in the applicant's prior art. The motivation for doing so would have been to apply Tiedemann's invention to UMTS.

Therefore, it would have been obvious to combine Applicant's prior art with Tiedemann for the benefit of applying Tiedemann's invention to UMTS to obtain the invention as specified in claims 12 and 19.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert C. Scheibel whose telephone number is 571-272-3169. The examiner can normally be reached on Monday and Thursday from 6:30-5:00 Eastern Time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema S. Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

RCS 9-19-05

Robert C. Scheibel
Examiner
Art Unit 2666

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